

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.     **(Original)** An apparatus for heat exchange, in particular for use in motor vehicles and especially for use in motor vehicle air conditioning systems which as refrigerant include a fluid with carbon dioxide (CO<sub>2</sub>) as at least one constituent, having
  - at least one feed line and discharge line, which open out into a distribution or collection space, respectively, for a fluid, and
  - at least one through-flow device, having
  - at least one first end-side flow connection section, through which the fluid enters the through-flow device or leaves the through-flow device,
  - at least one second end-side flow connection section, through which the fluid leaves the through-flow device or enters the through-flow device, and
  - the first flow connection section is flow-connected to the second flow connection section by at least one tube section,
  - characterized in that at least one of the flow connection sections is twisted at least once,
  - the first or second flow connection section is flow-connected to the collection space,
  - the second or first flow connection section is flow-connected to the distribution space.
  
2.     **(Original)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in claim 1, characterized in that the tube section has at least one straight section.

3. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the tube section has at least one curved section.
4. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the tube section has at least one twisted section.
5. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the tube section has at least two curved sections with different radii of curvature.
6. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the number of first and/or second flow connection sections is equal to the number of tube sections.
7. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the through-flow device has at least one flow passage, preferably a plurality of flow passages for passing on the refrigerant, and preferably has a cross section in the form of a flat tube.
8. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~one of the preceding claims~~ claim 1, characterized in that the through-flow device is made at least from a material selected from a group of materials consisting of metals, in particular aluminum, manganese, silicon, magnesium, iron, brass, copper, tin, zinc, titanium, chromium, molybdenum, vanadium, ~~silicon, magnesium~~ and alloys such as EN-AW 3003,

EN-AW 3102, EN-AW 6060, EN-AW 1110 thereof, plastics, fiber-reinforced plastics, composite materials.

9. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that at least the first and/or second flow connection section is twisted over a predetermined angle.

10. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the magnitude of the twisting angle is between 10° and 180°, preferably between 45° and 135°, and particularly preferably between 80° and 100°.

11. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claims, characterized in that the two transition sections are twisted in the same twisting direction.

12. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the two transition sections are twisted in opposite twisting directions.

13. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the tube section is multiply twisted.

14. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~

claim 1, characterized in that the tube section is twisted at least twice in the same twisting direction.

15. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the tube section is twisted at least twice in different twisting directions.

16. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the twisting angles of at least two twists of the tube section are substantially equal or equal in opposite directions.

17. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the curved section and/or the twisted section of the tube section is connected to a supporting element.

18. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that a plurality of distribution/collection spaces which are thermally separated from one another are provided.

19. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the thermal separation is effected by a plurality of distribution/collection spaces being spaced apart from one another.

20. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the thermal separation is effected by providing a

material which promotes thermal separation between the distribution/collection spaces.

21. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the distribution/collection space has receiving devices, the internal cross section of the receiving devices substantially corresponding to the external cross section of the through-flow device.

22. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the receiving devices are substantially rectangular in form, and the longer side of these receiving devices is arranged at a predetermined angle with respect to the longitudinal direction of the distribution/collection device.

23. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the magnitude of the angle is between 0° and 90°, preferably between 0° and 45°, and particularly preferably between 0° and 10°.

24. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that a plurality of through-flow devices are arranged substantially parallel to one another.

25. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that cooling fins are provided between the through-flow devices.

26. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the tube sections of the through-flow devices and the supporting element are at least partially connected to one another positively, cohesively and/or non-positively.
27. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that frame devices are provided and are at least partially connected positively, non-positively and/or cohesively to the supporting element and/or the collection/distribution space.
28. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that there is at least one separating device dividing the collection space and/or the distribution space into at least two space sections in a gastight and liquid-tight manner.
29. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that two distribution and/or collection spaces are provided at least one separating device is provided, dividing at least one of the two distribution and/or collection spaces into at least two space sections in a gastight and liquid-tight manner, and  
the two distribution and/or collection spaces are in flow connection only via the at least one through-flow device.
30. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the feed line and discharge line are provided at one of

the two collection and/or distribution spaces, preferably at the distribution and/or collection space which has the separating device.

31. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the feed line and the discharge line extend substantially in the longitudinal direction of the distribution or collection space at which they are arranged.

32. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the separating device divides the distribution or collection space in such a way that the ratio of the length of the section facing the feed line to the length of the section facing the discharge line is between 9:1 and 1:5, preferably between 5:1 and 1:1, and particularly preferably is approximately 2:1.

33. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that at least one space section of the distribution space is flow-connected to at least one space section of the collection space by at least one connection device.

34. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that at least one space section of a first distribution/collection space is flow-connected to a further space section of a second distribution/collection space by at least one connecting device, the first distribution/collection space and the second distribution/collection space not lying on a straight line.

35. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that the connection device is provided in the region of the separating device and is preferably formed integrally with the separating device.
36. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that a plurality of separating/connection devices, which are preferably in single-part form, are provided and effect multiple diversions of the refrigerant.
37. **(Currently amended)** An apparatus for heat exchange, in particular the apparatus for heat exchange as claimed in ~~at least one of the preceding claims~~ claim 1, characterized in that a distribution space, a collection space, a through-flow device and a feed and discharge line are components which form a module.
38. **(Currently amended)** A device for exchanging air, in particular for motor vehicle air-conditioning systems, having air flow paths, air flow control elements, at least one air delivery device and a housing which is suitable for receiving at least one apparatus for heat exchange, in particular as claimed in ~~at least one of the preceding claims~~ claim 1, or within which an apparatus for heat exchange of this type is arranged.
39. **(Currently amended)** A device for exchanging heat, in particular for motor vehicle air-conditioning systems, having at least one condenser, a compressor, an expansion valve, a collector and at least one apparatus for heat exchange, in particular as claimed in ~~at least one of the preceding claims~~ claim 1.
40. **(Original)** A process for producing a through-flow device, in particular a flat tube for an apparatus for heat exchange, which includes the following steps:

- production of a through-flow device extending substantially in one longitudinal direction;
- twisting of at least one first end-side flow connection section and at least one second end-side flow connection section through a predetermined twisting angle.

41. **(Currently amended)** A process for producing a through-flow device as claimed in claim ~~[[30]]~~ 40, characterized in that

- the through-flow device is curved in the region around a predetermined bending angle with respect to the longitudinal direction of the through-flow device to produce a curved section.

42. **(Currently amended)** A process for producing a through-flow device, in particular as claimed in ~~at least one of claims 30 or 31~~ claim 40, characterized in that the bending angle amounts to 0°, 30°, 45°, 60°, 90°, 120° or 180° or any desired values in between.

43. **(Currently amended)** A process for producing a through-flow device, in particular as claimed in ~~at least one of claims 30, 31 or 32~~ claim 40, characterized in that the through-flow device is twisted at least in one region, the twisting angle amounting to 0°, 30°, 45°, 60°, 90°, 120° or 180° or any desired values in between.